HISTORY OF WILD-TURKEY (*MELEAGRIS GALLOPAVO*) TRANSPLANTS IN THE OHIO HILL COUNTRY[1, 2]

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ABSTRACT

Wild turkeys once inhabiting Ohio have been extinct since 1904. Between February 1956 and November 1971, therefore, a total of 397 wild-trapped turkeys was released on 16 forested sites in the Ohio Hill Country, 142 received from other states and 255 transplanted from other Ohio sites. Field investigations following these releases have documented the subsequent re-establishment of the wild turkey in the State. In 1972 significant turkey populations were known to exist in 92 townships in 17 counties (Jefferson, Monroe, Washington, Morgan, Perry, Hocking, Athens, Meigs, Vinton, Gallia, Jackson, Ross, Highland, Pike, Lawrence, Scioto and Adams).

INTRODUCTION

Records are clear that the wild turkey once inhabited the entire state (Donohoe and McKibben, 1970, p. 1-2). The widespread conversion of forestland to cropland and wood products during the 1800's, coupled with liberal hunting apparently led to the extinction of the wild turkey in Ohio in 1904 (Chapman, 1938, p. 656).

The regrowth of large forested areas in southeastern and south-central Ohio prompted an attempt by the State to reintroduce the wild turkey. Between 1952 and 1957, 1,400 game farm turkeys were reared and released in several large forested areas by the Division of Wildlife (Sickels, 1959, p. 75). Subsequent field investigations showed that these releases were unsuccessful. Tar Hollow State Forest in Ross County and Zaleski State Forest in Vinton and Athens counties at first showed promise for game-farm turkey establishment. The

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populations on these areas remained stable for a time, then apparently vanished in the early 1960's.

Reasons for discontinuing game farm turkey releases were listed by Knoder (1957) as follows: (1) propagation difficulties and the resultant stock showing too many of the characteristics of the domestic turkey; (2) low survival and reproductive rates, and easy prey for the illegal hunter; and (3) susceptibility to a disease known as "blackhead" which affects the liver and intestines of the turkey.

Turkeys have subsequently been successfully reintroduced into the State by the Ohio Division of Wildlife, using wild trapped stock. The purpose of this paper is to document this reintroduction and establishment of the turkey (*Meleagris gallopavo silvestris*) in Ohio.

MATERIALS AND METHODS

From 1956 through 1963, the Division of Wildlife obtained wild trapped turkeys from West Virginia, Missouri, Alabama, Kentucky, Texas, Arkansas, and Florida. Birds were livetrapped and shipped by air, rail, and truck to Ohio for immediate release on designated forest sites (9,000 acres minimum).

In 1960, a program to trap Ohio turkeys and transplant them within forested areas was initiated, a program that has continued to the present time. Use of the cannon-net trap for turkey trapping (Schorger, 1966, p. 425–428) has been instrumental in the success of this transplant program.

Field investigations to evaluate the success of this turkey transplant program included spring gobbling counts, distribution of return-addressed observation postal cards to forestry personnel and other interested people, landowner interviews, annual cannon-net trapping, and data collection from seven spring gobbler hunts (1966–1972).

RESULTS

Between February 1956 and November 1971, a total of 397 wild trapped turkeys was released on 16 forested sites in the Ohio Hill County (Table 1, fig. 1). The instate transplant program contributed 255 turkeys to this total, while birds received from other states contributed 142.

Raccoon, Hocking, and Tar Hollow State Forests served as the major turkey sources for instate trapping and transplanting. These areas were livetrapped when spring gobbling counts, and observations of birds and of turkey "signs", such as scratchings in the leaf litter, droppings, and footprints, suggested that a thriving population was present. Livetrapping after three breeding seasons in Raccoon State Forest, initially stocked in 1956 and 1957 with a total of 18 wild turkeys from West Virginia and Kentucky (6♂♂, 12♀♀), has permitted the removal of 90 turkeys, since 1960, to other stocking sites. Field investigations in other forested sites stocked with wild turkeys revealed that these birds were established, reproducing, and increasing in most areas (Ohio Dept. Nat. Resources, 1965; Russell, 1966).

Because of this widespread increase in the numbers of wild turkeys, a spring harvest season was held in May 1966 (Donohoe, 1967). This was Ohio's first turkey season in 64 years. The spring season permits the taking of gobblers only. The hunt is based on the ability of the hunter to attrack the gobbler to him by imitating the call of the hen on a caller.

In Ohio, male turkeys begin gobbling in the early morning in April. This behavior is associated with mating. Gobbling reaches a peak around the third week of April and continues well into May. Dates for a spring gobbler hunt are set for the period when most of the hens have completed egg laying and are incubating. In Ohio, this period is in late April or early May. Incubating hens do not move from the nest for very long during incubation. Therefore, in most cases they are not available to the hunter. To date, 264 turkey gobblers have

been harvested in seven spring hunts (Donohoe and McKibben, 1972; fig. 1). One in 23 hunters has been successful in bagging a turkey. Limited range, a limited turkey population, and conflicts with other hunting seasons combine to preclude, so far, a fall either-sex turkey season for Ohio.

Transplanting data, field investigations, and hunter-questionnaire information show that turkey populations in 1972 exist in 92 townships in 17 counties (fig. 1).

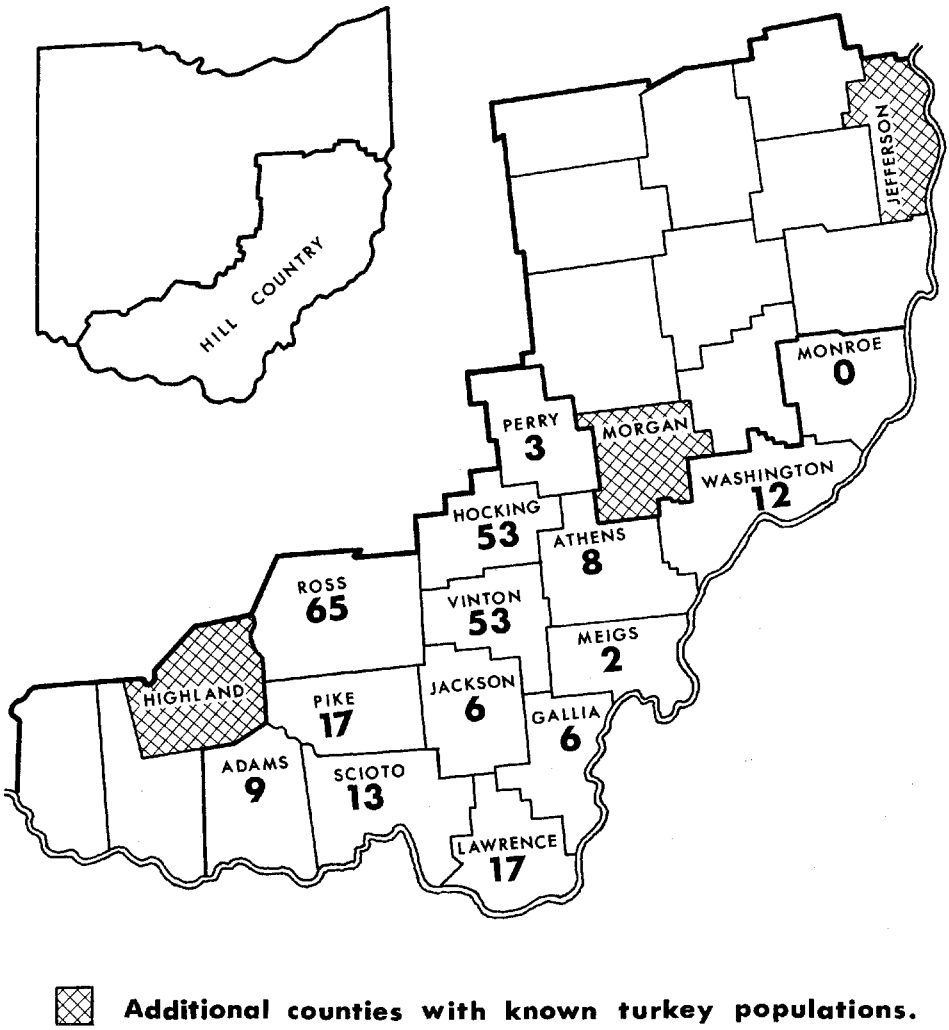

FIGURE 1. The Ohio Hill Country, showing the number of turkeys harvested in 14 open counties in seven spring hunts (1966–1972).

DISCUSSION

All of Ohio's major public forestlands within the Hill Country are now stocked with wild turkeys. This has taken 16 years. The advent of the spring turkey-hunting seasons, starting in 1966, has probably contributed the most substantial evidence for documenting the re-establishment of the wild turkey in Ohio.

Several townships stand out as good turkey-hunting areas. In the seven spring seasons since spring turkey hunting began, Benton and Laurel Townships in Hocking County have recorded kills of 15 and 26 birds, respectively. Twenty-eight turkeys have been killed in Brown Township, Vinton County, and 29 and 27 turkeys in Franklin and Harrison Townships, Ross County, respectively. Forty-seven percent of the total turkey harvest over the past seven seasons has been made in these five townships, all of which fall within four large forested areas of Ohio (Hocking, Zaleski, Tar Hollow, and Scioto Trail State Forests). Hunting pressure in each township has been higher than in townships with fewer kills or none.

TABLE 1

Ohio's wild turkey stocking, February 1956 through November 1971

Area Stocked	Subspecies	Approximate Size (acres)	County	Year of Release	Number Male	Number Female	Source of Stock
Raccoon State Forest* and vicinity	*silvestris*	20,000	Vinton	1956	2	4	West Virginia
					1	3	Kentucky
				1957	3	5	West Virginia
				Subtotal	6	12	
Shawnee State Forest	*intermedia*	57,752	Scioto, Adams	1957	4	20	Texas
	silvestris			1959	6	7	Alabama
					1	8	Arkansas
					2	4	Missouri
				1960	0	3	Missouri
				1961	3	0	Missouri
				1971	4	7	Zaleski State Forest
				Subtotal	20	49	
Telegraph Ridge Unit, Wayne Natl. Forest and vicinity	*osceola*	40,000	Lawrence	1957	2	4	Florida
	silvestris			1964	4	0	Raccoon State Forest
				1965	1	7	Hocking State Forest
				Subtotal	7	11	
Scioto Trail State Forest	*silvestris*	9,150	Ross, Pike	1959	1	1	Kentucky
				1960	0	5	Kentucky
					5	0	Missouri
				1961	0	5	Alabama
					0	2	Missouri
				Subtotal	6	13	
Pike State Forest	*silvestris*	10,585	Pike, Highland	1960	6	2	Raccoon State Forest
				1961	0	5	Missouri
					0	1	Raccoon State Forest
				Subtotal	6	8	
Wayne Natl. Forest and vicinity	*silvestris*	70,000	Washington, Monroe	1961	6	5	Missouri
				1962	4	15	Missouri
				1963	2	0	Missouri
				1971	0	5	Waterloo State Forest
				Subtotal	12	25	

TABLE 1—*Continued*

Area Stocked	Subspecies	Approximate Size (acres)	County	Year of Release	Number Male	Number Female	Source of Stock
Zaleski State Forest and vicinity	*silvestris*	40,000	Vinton, Athens	1961	8	5	Raccoon State Forest
				1961	11	4	Waterloo Expt. Sta. Area
				1965	5	8	Hocking State Forest
				1966	1	0	Hocking State Forest
				1967	2	6	Hocking State Forest
				1968	1	0	Tar Hollow State Forest
				Subtotal	28	23	
Hocking State Forest and vicinity	*silvestris*	10,000	Hocking	1962	11	14	Raccoon State Forest
				1963	4	0	Missouri
					0	5	Raccoon State Forest
				Subtotal	15	19	
Tar Hollow State Forest	*silvestris*	16,500	Ross, Vinton, Hocking	1963	9	13	Raccoon State Forest
				1964	3	4	Zaleski State Forest
					7	3	Raccoon State Forest
				Subtotal	19	20	
Wayne Natl. Forest and vicinity	*silvestris*	40,000	Athens, Hocking	1966	7	1	Hocking State Forest
				1967	0	10	Hocking State Forest
				Subtotal	7	11	
Brush Creek State Forest and vicinity	*silvestris*	12,000	Adams, Pike, Scioto	1963	2**		Scioto Trail State Forest
				1968	5	11	Tar Hollow State Forest
				Subtotal	5	11	
Shade River State Forest and vicinity	*silvestris*	5,000	Meigs	1968	2	8	Hocking State Forest
				1969	2	0	Tar Hollow State Forest
				Subtotal	4	8	
Wayne Nat. Forest and vicinity	*silvestris*	5,000	Morgan, Perry	1969	4	9	Waterloo State Forest
					2	0	Raccoon State Forest
				1970	2	0	Waterloo Expt. Sta. Area
				Subtotal	8	9	
Bloomfield Township	*silvestris*	11,000	Jackson	1969	7	7	Tar Hollow State Forest
				1970	2	0	Waterloo Expt. Sta. Area
				Subtotal	9	7	

TABLE 1. *Continued*

Area Stocked	Subspecies	Approximate Size (acres)	County	Year of Release	Number Male	Number Female	Source of Stock
Starr Township	*silvestris*	5,000	Hocking	1970	1	0	Waterloo Expt. Sta. Area
					3	0	Hocking State Forest
					0	3	Tar Hollow State Forest
				Subtotal	4	3	
Bush Creek Wildlife Area and vicinity	*silvestris*	5,000	Jefferson	1970	2	7	Hocking State Forest
				1971	2	1	Hocking State Forest
				Subtotal	4	8	
				Grand Total**	160	237	

*This area came under the control of The Mead Corporation in December 1969.
**Sex was not determined for two turkeys.

In the seven spring hunts, 6,171 hunters have heard 19,173 turkeys and have seen 4,556 turkeys (Donohoe and McKibben, 1972). Although these figures undoubtedly include duplications, they lend credence to the broad distribution of the wild turkey in the Hill Country.

The transplanting program has not been without failures. The six Florida turkeys (*Meleagris gallopavo osceola*) transplanted to Wayne National Forest, Lawrence County, and the 24 Rio Grande turkeys (*Meleagris gallopavo intermedia*) from Texas transplanted to the Shawnee State Forest, Scioto and Adams counties, were unsuccessful. These subspecies were available in the early years of the program, and it was thought that they might adapt to forest conditions in Ohio. Follow-up field investigations showed that this was not the case.

Reintroductions of wild turkeys in Ohio have been limited to the Hill Country (fig. 1). This area contains the bulk of the public and private forestlands in the state, totaling 4,400,000 acres of commercial forestland (DeBald and McCay, 1969, p. 2). Turkeys have been found in all of the major forest types within the Hill Country.

The area of forest in the Hill Country should continue to increase at a rate of about two percent annually through the next decade (DeBald and McCay, 1969, p. 14). Whether this forest expansion will provide a more extensive environment for turkey survival in Ohio, with almost 11,000,000 people living in the state (Eis, 1969), remains to be seen. Demands on the forest community for wood products and recreational opportunities are becoming greater each year.

Firm land-use priorities for turkeys on public forestland should be established if the bird is to remain a part of the Ohio fauna. Two large management units in the Wayne National Forest are now in operation. The 4300-acre unit in Washington County will be expanded to 10,000 acres. The 15,000-acre unit in Lawrence County will be expanded to 25,000 acres. Since each unit is managed with emphasis on turkey production, timber management is coordinated to maintain the favorable turkey forest habitat. Timber harvests are planned so that at least 60 percent of each management unit is maintained as stands of mast-producing

trees of pole size or larger. Additional wild-turkey management units are being planned for state forestlands for the future.

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The Pine Barrens: Vegetation Geography. *Jack McCormick* and *Leslie Jones.* New Jersey State Museum Research Report No. 3. 1973. xi+50 p. $4.00 plus postage and handling.

This report presents vegetational and land-use mapping of approximately 1.2 million acres collectively referred to as the Pine Barrens of Southern New Jersey. The maps represent an assessment of the biotic communities of this region as shown by its vegetation. Seventy-one photographically reduced 7.5-minute topographic quadrangles are presented with mapping depicting six forest types, three land-use classes, and five marsh or water types. Generally areas of all mapped units are larger than twenty acres.

This series of maps should be of value to regional and local planners, as well as resource managers and conservation commissions. They will also provide ecologists with an excellent reference source of specific community types for comparison studies, as well as environmental-impact assessments resulting from residental and commercial encroachment.

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